

FINDING OF NO SIGNIFICANT IMPACT

**SMITH STATION CT UNITS 9 & 10 AND THE SMITH-WEST GARRARD
TRANSMISSION LINE PROJECT**

RURAL UTILITIES SERVICE

related to possible financing to:

East Kentucky Power Cooperative

Prepared by:

**Engineering and Environmental Staff
Rural Utilities Service**

September 12, 2007

East Kentucky Power Cooperative (EKPC) has requested assistance from the Rural Utilities Service, an agency which administers the U.S. Department of Agriculture's Rural Development Utilities Programs (USDA Rural Development) to finance the construction of two new combustion turbine electric generating units (CTs), two new electric switching stations, and a 36-mile, 345 kilovolt (kV) electric transmission line located in Clark, Madison and Garrard Counties, Kentucky.

The proposed project (Proposal) consists of the construction of 2 new CTs at EKPC's existing J.K. Smith Electric Generating Station in southern Clark County, Kentucky. The proposed CTs would be fueled by natural gas and would each have a net electrical output of between 82 and 98 megawatts. The proposed new units are needed to provide additional electric generating capacity that would allow EKPC to meet its projected electrical peaking demand for 2009 and beyond. The Proposal also includes the construction of 2 new electric switching stations, 1 at its existing J.K. Smith Generating Station (utilizing approximately 8 acres) and 1 in western Garrard County, Kentucky (disturbing between 5 and 10 acres); and a 36-mile, 345-kV electric transmission line (on a 150-foot right-of-way) that would extend through Clark, Madison, and Garrard Counties, Kentucky. The proposed new transmission facilities are needed to provide an outlet for the additional electric power that would be generated at the J.K. Smith Station as a result of the installation of the proposed new CTs. The new transmission line would be supported by vertical H-frame steel pole structures that would range in height from 90 to 130 feet aboveground. The construction of the

Proposal is tentatively scheduled to begin in the fall of 2007 with an estimated construction duration of 2 years.

Alternatives considered by USDA Rural Development and EKPC include: (a) No action (b) alternative generation technology (c) alternative transmission improvements (c) alternative sites and (d) alternate transmission line corridors. The alternatives are discussed in the Smith Station CT Units 9 & 10 and the Smith-West Garrard Transmission Line Project Environmental Report (ER).

EKPC submitted to USDA Rural Development the ER, which addresses the potential environmental impacts of the Proposal. USDA Rural Development conducted an independent evaluation of the ER and concurs with its scope and content. In accordance with USDA Rural Development's Environmental Policies and Procedures at 7 CFR § 1794.41, USDA Rural Development has accepted EKPC's ER as its EA.

USDA Rural Development held an agency meeting and a public scoping meeting in an open house format on Tuesday, July 11, 2006 in Richmond, Kentucky. The purpose of the meeting was to provide information and solicit comments for the preparation of an EA. Approximately 22 people attended the meeting. EKPC held 2 additional public open houses, and as a result of the 3 meetings, 117 comments were received. The comments were subsequently addressed in the EA. The notice of availability of the EA for public review was published in the *Federal Register* Vol. 72, No. 122 Tuesday, June 26, 2007, and was also published in the local papers *Lexington Herald Leader*, Lexington, Kentucky; *Richmond Register*, Richmond, KY; *Garrard Central Record*, Lancaster, KY; and the *Winchester Sun*, Winchester, Kentucky. The EA was distributed

for public and agency review. The 30-day comment period on the EA ended July 26, 2007. Comments were received from 2 parties.

The comments have been reviewed and USDA Rural Development provides the following responses to the issues raised:

Segmentation of Projects

Commenter suggested the Proposal be considered in the same environmental document as the EKPC proposed 278 MW circulating fluidized bed generating unit (CFB) and associated facilities at EKPC's existing J. K. Smith Power Station (J. K. Smith) located in southeastern Clark County, Kentucky (Smith CFB Unit 1). USDA Rural Development has determined that the Proposal under consideration and the proposed Smith CFB Unit 1 are separate and distinct projects because the projects satisfy two different needs: peaking power vs. baseload power. The peaking power from the CT's is needed by 2009, and the baseload power provided by Smith CFB Unit 1 is not needed until 2011. The construction of the proposed CTs to meet near-term peaking demand will necessitate the construction of additional transmission capacity from J.K. Smith in the same time frame. It is prudent to design that additional transmission capacity to meet the peaking need (the Proposal), as well as to provide additional transmission capacity for future generation growth, including the potential baseload generation (Smith CFB Unit 1). Additional transmission would be needed for any expansion at EKPC's existing J.K. Smith. Construction of the proposed 345-kV transmission line reduces potential environmental impacts and costs in the future by reducing the number of transmission outlets from the J.K. Smith. The separate need

and timing for the CTs and CFB project is also demonstrated by their consideration as two separate RUS loan applications. The EA for the proposed CTs addresses the Smith CFB Unit 1 and the potential for future CTs in its cumulative effects analysis. Thus, the current proposal has been evaluated in light of past, present, and reasonably foreseeable actions in the project area, including the potential CFB project.

Alternatives/Conservation and Demand Side Management

The commenter suggested that considering the proposed CTs and Smith CFB Unit 1 separately limited the consideration of alternatives. The idea was raised that combining the projects could allow consideration of distributed generation and demand side management/conservation instead of the CTs, transmission line, and CFB. USDA Rural Development has considered this comment. The previous response details the reasons for considering the proposals separately. Conservation and offsetting need were addressed in the EA in Section 2.1.1.3. Conservation does not eliminate peak power needs, therefore the CTs would still be needed. EKPC currently has several conservation/DSM Programs; Touchstone Energy Home, Touchstone Energy Manufactured Home, Energy Efficient Water Heaters, Geothermal Heating and Cooling, Home Energy Audits, Tune-Up, Button-Up, Compact Fluorescent Lamp (CFL) Purchase Program (over 250,000 CFL's given to members since 2003), Electric Thermal Storage, Interruptible Load Service, and Air-to-Air Heat Pumps. The need for future generation exists despite these DSM/conservation programs.

Suggested Alternate Route

One commenter suggested EKPC consider an alternate route between EKPC's Avon 345kV Switching Station and EKPC's Fawkes Substation. USDA Rural Development has evaluated this alternative and determined that the suggested alternative does not provide an outlet from the Smith Plant and therefore does not address the project's purpose and need. In addition, an exhaustive macro-corridor study was conducted by EKPC and the suggested alternative was not identified as it does not provide a direct connection with J.K. Smith.

US Forest Service Land

A commenter suggested the United States Forest Service land was given special consideration in alternative route selection. In response, Table 2.1.2.3.4.a – *Comparison of 345kV Transmission Outlet Alternatives* (page 22 in the EA) demonstrates that the United States Forest Service administered land was just 1 of a multitude of factors considered when evaluating the transmission outlet alternatives. The 2 alternate routes considered are longer in length and have fewer opportunities for co-location with existing transmission lines than the Proposal. The alternatives thereby involve more land owners, have more of an effect on existing land use and natural resources located in the area, and are more costly to construct. The other alternatives considered would require substantially more system upgrades than the proposal, increasing economic and environmental costs associated with the construction of the proposed new line. Furthermore, 1 of the alternatives would require the additional construction of approximately 18 miles of new 138 kV transmission line. Additionally, the Proposal is centrally located within EKPC's system thereby providing better

opportunities for future expansion and support of EKPC's system than the alternatives considered. Based on the comparison of the three alternatives, the Proposal was determined to have the least impact on the environment and was therefore selected as the preferred alternative by USDA Rural Development.

Co-location

The commenter questioned the reasoning behind the preference for co-locating transmission lines.

The preferred route was selected using a process that incorporates the suitability of an area with the transmission line. The suitability values were developed with input from Kentucky Stakeholders (industry, landowner, and agency representatives), and the co-location of facilities emerged as a public preference. Co-location requires less right-of-way disturbance and therefore generally limits environmental impacts. The acceptability of co-location is also well established in KY Public Service Commission policy and is commonly considered a responsible industry practice. Recent KY PSC rulings (Aug. 19, 2005, KY PSC Case No. 2005-00089; April 7, 2006, KY PSC Case No. 2005-00458; Sept. 8, 2005, KY PSC Case No. 2005-00142; May 26, 2006, KY PSC Case No. 2005-00467; and Oct. 31, 2005, KY PSC Case No. 2005-00207) emphasize the need to co-locate transmission facilities when and where possible.

Multiple Circuits

The concern was also raised that EKPC could place multiple circuits on 1 line as opposed to constructing an additional transmission line along an existing line.

In the case of the Proposal, multiple circuits create unacceptable reliability risk in violation of NERC Reliability Standards because both circuits are critically needed, and an outage of one line could affect the other, reducing overall reliability.

In Conclusion

USDA Rural Development has determined that the proposal will have no significant impact to water quality, wetlands, the 100-year floodplain, land use, aesthetics, transportation, or human health and safety.

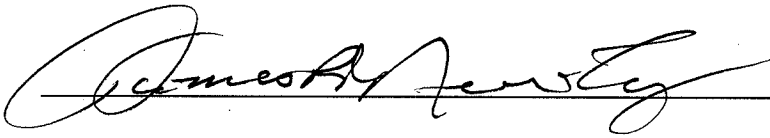
The proposal will have an adverse effect on 1 historic property eligible for listing on the National Register of Historic Places and 1 currently listed historic property. Mitigation measures for the Proposal are stipulated in a Memorandum of Agreement signed on July 23, 2007 by USDA Rural Development, the Kentucky State Historic Preservation Officer, and EKPC.

USDA Rural Development has also concluded that the Proposal is not likely to affect federally listed threatened and endangered species or designated critical habitat. The Proposal will not disproportionately affect minority and/or low-income populations. No other potential significant impacts resulting from the Proposal have been identified. Therefore, USDA Rural Development has determined that this finding of no significant impact fulfills its obligations under the National Environmental Policy Act, as amended (42 U.S.C. 4321 *et seq.*), the Council on Environmental Quality Regulations (40 CFR §§ 1500-1508), and USDA Rural Development's Environmental Policies and Procedures (7 CFR Part 1794) for its action related to the Proposal.

USDA Rural Development is satisfied that the environmental impacts of the Proposal have been adequately addressed. Since USDA Rural Development's Federal action

would not result in significant impacts to the quality of the human environment, it will not prepare an environmental impact statement for its action related to the Proposal.

Dated:

A handwritten signature in black ink, appearing to read "James R. Newby", written over a horizontal line.

James R. Newby

Assistant Administrator, Electric Programs

Rural Utilities Service